

ABSTRACT

A fiber optic transceiver adapted for use in an optical fiber data transmission system is capable of detecting reflection problems in fiber optic links and providing information related to the distance to the point of reflection. The fiber optic transceiver contains a fiber interface, a receiver, a transmitter, and a microcontroller. The microcontroller controls the transmitter to modulate the laser power to transmit impulse test data and the transceiver includes circuitry and microcode to detect reflection due to fiber connection problems. This enables trouble shooting during installation and/or reconfiguring the connection automatically, in response to a connection problem, and provides a physical layer link.